

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P1001	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 97/ 06345	International filing date (day/month/year) 17/04/1997	(Earliest) Priority Date (day/month/year) 19/04/1996
Applicant GENENTECH, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☒ Certain claims were found unsearchable (see Box I).
2. ☐ Unity of invention is lacking (see Box II).
3. ☒ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
 - ☒ filed with the international application.
 - ☐ furnished by the applicant separately from the international application,
 - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
 - ☐ Transcribed by this Authority
4. With regard to the title,
 - ☒ the text is approved as submitted by the applicant.
 - ☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract,
 - ☒ the text is approved as submitted by the applicant.
 - ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:
 - Figure No. _____ ☐ as suggested by the applicant.
 - ☐ because the applicant failed to suggest a figure.
 - ☐ because this figure better characterizes the invention.
 - ☒ None of the figures.

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 32-37
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 32-37 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/12 C07K14/475 C12N15/62 A61K38/18 C07K16/22
C07K19/00 C12Q1/68 G01N33/50 C12N5/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N C07K A61K C12Q G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	NEURON, vol. 14, no. 5, 1995, pages 973-981, XP002038221 WINSLOW J.W. ET AL.: "Cloning of AL-1, a ligand for Eph-related tyrosine kinase receptor involved in axon bundle formation." cited in the application see the whole document, especially Fig. 4	1-17, 38, 39
Y	EMBL Database entry HS006163 Accession number H10006 02.07.1995 Hillier L. et al.: 'The WashU-Merck EST project.' XP002038224 cited in the application see abstract --- -/-	1-17, 38, 39

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

* & * document member of the same patent family

Date of the actual completion of the international search

22 August 1997

Date of mailing of the international search report

05.09.97

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Mandl, B

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 95 27060 A (REGENERON PHARMA) 12 October 1995 cited in the application see the whole document ---	1-39
A	SCIENCE, vol. 266, 1994, pages 816-819, XP002038222 DAVIS S. ET AL.: "Ligands for EPH-related receptor tyrosine kinases that require membrane attachment or clustering for activity." cited in the application see the whole document ---	1-39
E	WO 97 15667 A (REGENERON PHARMA ;DAVIS SAMUEL (US); GALE NICHOLAS W (US); YANCOPO) 1 May 1997 see the whole document, especially Fig. 1 ---	1-39
P,X	ONCOGENE, vol. 13, no. 6, 19 September 1996, pages 1343-1352, XP000644665 GALE N W ET AL: "ELK-L3, A NOVEL TRANSMEMBRANE LIGAND FOR THE EPH FAMILY OF RECEPTOR TYROSINE KINASES, EXPRESSED IN EMBRYONIC FLOOR PLATE, ROOF PLATE AND HINDBRAIN SEGMENTS" see the whole document, especially Fig.1 ---	1-39
P,X	GENOMICS, vol. 41, no. 1, 1 April 1997, pages 17-24, XP002038223 TANG X.X. ET AL.: "cDNA cloning, chromosomal localization and expression pattern of EPLG8, a new member of the EPLG gene family encoding ligands of EPH-related protein tyrosine kinase receptors." see figure 1 ---	1,2,4-6, 10,18-22
P,X	EMBL Database entry Hsu57001; Accession number U57001; 31.07.1996 Cerretti D. P.: 'LERK-8, a ligand for the eph-related receptor tyrosine kinases.' XP002038226 see abstract -----	1,2,4-6, 10,18-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 97/06345

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9527060 A	12-10-95	AU 2278995 A	23-10-95
		CA 2187167 A	12-10-95
		EP 0758381 A	19-02-97
		ZA 9502762 A	20-02-96
<hr/>			
WO 9715667 A	01-05-97	AU 7477896 A	15-05-97
<hr/>			